

*Cont  
C1*

52. (New) The method according to Claim 49, wherein the extracting is performed in the presence of a surfactant--

SUPPORT FOR THE AMENDMENT

Claims 34-52 are added. The addition of new Claims 34-52 is supported at pages 1-25 of the specification and in the original claims. No new matter is believed to be introduced by the amendment.

REMARKS

Claims 14-33 are cancelled in favor of new Claims 34-52. Favorable reconsideration is respectfully requested.

At the outset, Applicants thank Examiner Slobodyansky for indicating that the amendment would further favorable prosecution of the present application and for helpful comments during the discussion held on December 6, 2002.

The present application relates to a recombinant and mutagenized isolated polypeptide having luciferase activity which is derived from an insect belonging to the Order Coleoptera (See Claim 14). The claimed isolated polypeptide has improved luciferase activity of 89.3% in the presence of benzalkonium chloride compared to the luciferase activity in the absence of benzalkonium chloride (See Claim 34). Further, the present invention relates to an isolated polypeptide having an amino acid sequence that is 99.6% identical to a polypeptide corresponding to that of an amino acid sequence of wild type luciferase from Genji or Heike firefly and an improved luciferase activity in the presence of a surfactant compared to a polypeptide having luciferase activity in which a mutation has not been introduced; the improved luciferase activity of the isolated polypeptide is not less than 89.3% in the presence

of the surfactant compared to its luciferase activity in the absence of a surfactant (See Claim 35 above).

The rejection of Claims 14-20, 22, 24, 25, and 27-33 under 35 U.S.C. § 112, first paragraph, is believed to be obviated by the cancellation of these claims. Further, new Claims 34-52 are reasonably enabled by the present specification.

In accordance with the Examiner's suggestion, Applicants claim a specific isolated polypeptide from the Order *Coleoptera* having a specific level (e.g. at least 89.3 % activity) of resistance in its activity to a benzalkonium chloride (See Claim 34) and/or Applicants claim a specific sequence that is at least 99.6% identical to a polypeptide corresponding to that of an amino acid sequence of wild type luciferase from Genji or Heike firefly having a specific level (e.g. at least 89.3 % activity) of resistance in its activity to a surfactant (See Claim 35). Finally, Applicants provide in the claims a specific reference points from which improved resistance is calculated (See Claims 34 and 35 above).

Since the claims contain both structural and functional limitations as discussed above, and these structural and functional limitations have clear support in the specification, Applicants respectfully request withdrawal of this ground of rejection.

The rejection to Claims 14-20, 22, 24, 25, and 27-33 under 35 U.S.C. § 102(e) over Hirokawa et al is obviated by the cancellation of these claims. Further, Hirokawa et al neither describes nor suggests the isolated polypeptide recited in newly-added Claims 34-52. To support this argument, Applicants provide herewith paper and computer readable copies of the Sequence Listing of US 60/051,917 from which Hirokawa et al claims priority to demonstrate that the subject matter relied upon to sustain the above-mentioned rejection is not entitled to priority benefits of the date that US 60/051,917 was filed. Accordingly, this subject matter is clearly only entitled to the filing date of Hirokawa et al itself; and therefore,

is removed as a reference due to the perfection of priority of the present application discussed below.

The basis for the Examiner's rejection is the subject matter related to SEQ ID NO: 14 of Hirokawa et al (see page 9, line 18, to page 10, line 5 of Office Action). Hirokawa et al was filed in the U.S. on July 8, 1998. Although Hirokawa et al does claim priority to Provisional Application Number 60/051,917 filed on July 8, 1997 (see column 1, lines 6-8, of Hirokawa et al), SEQ ID NO: 14 and its related subject matter in Hirokawa et al is not disclosed in Provisional Application Number 60/051,917. Copies of Provisional Application Number 60/051,917, the date-stamped filing receipt, and the USPTO filing receipt are attached for the Examiner's convenience. Therefore, the subject matter related to SEQ ID NO: 14 of Hirokawa et al is not entitled to priority under 35 U.S.C. § 119(e) to Provisional Application Number 60/051,917. Since there is not a priority date for subject matter related to SEQ ID NO: 14 of Hirokawa et al, this subject matter maintains an effective filing date of July 8, 1998.

Applicants respectfully submit herewith another copy of the English-language translation of the priority document, JP 9/361022, filed on December 26, 1997, establishing a perfection of priority of the present application. Further, applicants file herewith a signed statement that the translation of the certified copy is accurate. As a result of the perfection of priority, the priority date of the present application is December 26, 1997. Therefore, the priority date of the present application is before July 8, 1998, which is the effective filing date of subject matter related to SEQ ID NO: 14 of Hirokawa et al. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The objection Claim 14 is obviated by the cancellation of this claim. Accordingly, withdrawal of this ground of objection is respectfully requested.

Applicants respectfully submit that the present application is now in condition for allowance. Favorable reconsideration is respectfully requested. Should anything further be required to place this application in condition for allowance, the Examiner is requested to contact Applicants' Attorney by telephone.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

  
Norman F. Oblon  
Attorney of Record  
Registration No. 24,618

Thomas W. Barnes III, Ph.D.  
Registration No. 52,595



**22850**

(703) 413-3000  
Fax #: (703) 413-2220  
NFO/TWB:twb  
I:\atty\Twb\193582us-am-d.wpd

193582US0PCT

**Marked-Up Copy**  
Serial No: 09/581,241  
Amendment Filed on:  
HEREWITH

IN THE CLAIMS

--Claims 14-33 are cancelled.

Claims 34-52 are new.--